DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003971 Address: 333 Burma Road **Date Inspected:** 29-Aug-2008

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1500 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Chen Chih Chien **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** OBG panels, lap plates

Summary of Items Observed:

Sub Assembly - Bay 1

Caltrans Quality Assurance Inspector George Goulet (QA Inspector) observed Caltrans letter to ABF Project Executive Michael Flowers, dated August 28, 2008, concerning cracks in the U-rib tack welds and temporary suspension of diaphragm plate to deck panel assembly.

QA Inspector randomly observed deck panels in various stages of fabrication and approximately 65 ZPMC workers performing the following: grinding of a butt weld joint in one of two closed ribs of extended length for DP497-001 as follows – U264/U180, and U182/U153; machine bending the curve into flat plates for the closed ribs; cleaning of deck plates in layout pattern where the rib welds will be; grinding of root pass of longitudinal rib to deck plate welds; ZPMC MT Operator Ace Xu Hai (MTO) - MT of tacks on DP441-001. MTO marked 24 indications observed by MTO. QA Inspector observed the tacks had been ground but no MT powder was visible to QA Inspector on DP357-001. Also present in this bay were ABF QC's Chang Bao Qian, Man-Kit Li, and Lu Yun. Items observed appeared to comply with project specifications.

Sub Assembly - Bay 2

QA Inspector randomly observed approximately 2 ZPMC workers using drill presses to drill patterned approximately 30mm holes into lap plates of approximately 50mm x 400mm x 1200mm. No welding was observed being performed in this bay.

Sub Assembly - Bay 3

QA Inspector randomly observed approximately 60 ZPMC workers performing the following: Fitting, preheating,

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and tack welding of ribs to SP530-001, DP729-001, DP126-001, EP098-001, and DP723-001 using SMAW; FCAW-G of web and flange butt welds adjoining W21 x 57 beams to eventually become side panel ribs; VT of rib to plate tacks on EP-180-001 and EP182-001 by ZPMC Chen Chih Chien and ABF QC Peng Wen Jun. Items observed appeared to comply with project specifications.





Summary of Conversations:

QA Inspector asked ABF QC's Chang Bao Qian, Man-Kit Li, and Lu Yun if they had seen the ZPMC CWI that was assigned to this bay. All three responded that they had not seen any ZPMC CWI in this bay on this day. ABF QC Chang Bao Qian added that the assigned ZPMC CWI was Sun Wei and he was in the office.

QA Inspector asked ABF QC Peng Wen Jun (ABF QC 4) if he was checking the preheating requirements of the welding in Bay 3. ABF QC 4 assured QA Inspector that he was checking the preheat requirements and would continue to do so.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco, 138-1694-2685, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer